

What is claimed is:

1. Use of

- (a) a nucleic acid molecule encoding human Kremen 1 and having the nucleotide sequence as depicted in Figure 1 or human Kremen 2 and having the nucleotide sequence as depicted in Figure 2,
- (b) a nucleic acid molecule which is capable of specifically hybridizing to the nucleotide sequence encoding Kremen 1 as depicted in Figure 1 and/or to the nucleotide sequence encoding Kremen 2 as depicted in Figure 2; or
- (c) at least one ligand which is capable of specifically binding to a Kremen 1 and/or Kremen 2 polypeptide.

for the preparation of a composition for diagnosis of a defect of the wnt/frz/LRP5,6 cascade.

2. The use of claim 1, wherein the ligand is an antibody.

3. The use of claim 1 or 2, wherein the nucleic acid molecule has a length of at least 10 nucleotides.

4. The use of any one of claims 1 to 3, wherein the nucleic acid molecule or ligand are detectably labeled.

5. The use of claim 4, wherein the label is selected from the group consisting of a radioisotope, a bioluminescent compound, a chemiluminescent compound, a fluorescent compound, a metal chelate, or an enzyme.

6. The use of any one of claims 1 to 5, wherein the nucleic acid molecule or ligand are bound to a solid support.

7. Use according to claims 1 to 6, wherein the target to which the nucleic acid molecule hybridizes is an mRNA.

8. A method for identifying a binding partner to a Kremen 1 and/or Kremen 2 polypeptide comprising:

- (a) contacting said polypeptide with a compound to be screened; and
- (b) determining whether the compound effects an activity of said polypeptide or whether binding of the compound to said polypeptide has occurred.

9. A method for identifying activators/agonists or inhibitors/antagonists of a Kremen 1 and/or Kremen 2 polypeptide comprising the steps of:

- (a) incubating a candidate compound with said polypeptide;
- (b) assaying a biological activity, and
- (c) determining if a biological activity of said polypeptide has been altered.

10. Use of a nucleotide molecule encoding a polypeptide having a biological activity of Kremen 1 and/or Kremen 2, a Kremen 1 and/or Kremen 2 polypeptide, an activator/agonist of a Kremen 1 and/or Kremen 2 polypeptide or binding partner of said polypeptide(s) for the preparation of a pharmaceutical composition for inhibiting the Wnt signal cascade.

11. Use according to claim 10 for supporting regenerative processes.

12. An activator/agonist or inhibitor/antagonist of a Kremen 1 and/or Kremen 2 polypeptide or binding partner of said polypeptide(s) obtainable by the method claim 8 or 9.

13. A pharmaceutical composition comprising a compound which is capable of modulating the expression of a nucleic acid

molecule (a) encoding human Kremen 1 and having the nucleotide sequence as depicted in Figure 1 or human Kremen 2 and having the nucleotide sequence as depicted in Figure 2 or (b) which is capable of specifically hybridizing to the nucleotide sequence encoding human Kremen 1 as depicted in Figure 1 and/or to the nucleotide sequence encoding human human Kremen 2 as depicted in Figure 2 or the activity of Kremen 1 and/or Kremen 2, and a pharmaceutically acceptable excipient, diluent or carrier.

14. The pharmaceutical composition of claim 13, wherein the compound stimulates expression of the gene encoding Kremen 1 and/or Kremen 2 or the activity of Kremen 1 and/or Kremen 2.

15. The pharmaceutical composition of claim 13 or 14, wherein the compound is a nucleotide molecule encoding a polypeptide having a biological activity of Kremen 1 and/or Kremen 2, a Kremen 1 and/or Kremen 2 polypeptide, an activator/agonist or inhibitor/antagonist of a Kremen 1 and/or Kremen 2 polypeptide or binding partner of said polypeptide(s) obtainable by the method of claim 8 or 9.